

S/N: 09/929,111

Atty Dkt No. GP-301052 (GM0357PUS)

Amended

2. (Amended) A test pallet to substitute for a production pallet having a clamp portion located thereon in a station for machining comprising:

said test pallet configured with a clamp portion like said production pallet but distinguished from said production pallet by being capable of recording data;

said clamp portion on said test pallet being in the same location as the clamp portion on said production pallet;

a load cell installed at said clamp portion on said test pallet; and

an on-board data acquisition collector.

3. (Amended) The test pallet, as defined in claim 2, further comprising a test code operable to communicate at said station not to proceed with said machining there.

REMARKS

Claims 1-15 are pending. Claims 7-15 are allowed. Claims 1-6 are rejected, have been amended and are believed to be allowable. This Amendment is intended to be fully responsive to the Office Action mailed November 22, 2002.

Claims 2-6 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for lacking to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 has been amended on line 6 to call for a "clamp portion" and to provide an antecedent basis for this limitation.

Claim 2 has also been amended to make definite how a test pallet and a production pallet are configured in order for similarities and differences to be established between the two elements. Claim 2 has also been amended to make definite the "clamp portion in the same location" by calling additionally for the clamp portion "on said test pallet being in the same location as the clamp portion on said production pallet."

Claim 3 has been amended to make definite that it is the "machining" that is "not to proceed" when the "test code" on the "test pallet" identifies it as "test" and operates to communicate this test identification at the "station" defined in claim 2.

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Claims 4, 5 and 6 are being submitted for reconsideration of the rejection for indefiniteness. The amendment to claim 2 from which claims 4-6 depend are believed to respond to the 112 2nd paragraph rejection.

Claim 1 is rejected under 35 U.S.C. §103(a) as being unpatentable over Crews, Jr. '281 in view of Krainski Jr. '175.

The Examiner has indicated as a reason for allowability that Applicant's method for monitoring clamp loads on a production test pallet are neither disclosed nor suggested in the available prior art. Accordingly, claim 1 has been amended to reflect this reason for a test part. The Amendment is supported in the specification at page 2, lines 11-16 and page 6, lines 1-17.

Neither Crews Jr. nor Krainski Jr. teach "substituting a test part for the production part wherein the "test part includes at least one clamp portion in the same location as a clamp portion on said production part." Amended claim 1 is believed to distinguish the prior art and to be allowable.

Claims 2-3 are rejected under 35 U.S.C. §103(a) as being unpatentable over Crews Jr. '281 in view of Krainski Jr. '175 and further in view of Shelor '099.

Neither Crews Jr., Krainski Jr. nor Shelor teach a "pallet" as a stand-in or substitute for a "production pallet". Moreover, claims 2 and 3, as amended to cure indefiniteness, also distinguish these references by calling for a "test pallet configured with a clamp portion like said production pallet but distinguished from said production pallet by being capable of recording data". The amendments are supported in the specification at page 3, lines 5-15 and page 4, lines 3-5.

The applied references, taken singly or in combination also fail to teach or suggest the combination defined by the amended claims 2 and 3. Moreover, the inherency which the Examiner finds in Krainski Jr. "to stop the loading" can only be found using hindsight with Applicant's specification. More specifically, the rejection fails when the test pallet is further comprised of "a test code operable to communicate at said (machining)

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station not to proceed with machining there" as defined in claim 3.

Claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over Crews Jr. in view of Krainski Jr. and Shelor as applied to claim 2 above, and further in view of McClure '264.

Here, too, neither Crews Jr., Krainski Jr., Shelor nor McClure teach a "pallet" as a stand-in or "substitute for a production pallet", as claimed. Nor is there a teaching for combining these four references except in the Applicant's specification.

Claim 4 is also believed to be allowable for the further reasons given above in response to the rejection of claim 2, from which claim 4 depends.

Claims 5-6 are rejected under 35 U.S.C. §103(a) as being unpatentable over Crews Jr. in view of Krainski Jr. and Shelor as applied to claim 2 above, and further in view of Piety et al. '874.

Both claims 5 and 6 distinguish these references by the limitations in claim 2 from which they depend. Claim 2 calls for a "test pallet configured with a clamp portion like said production pallet but distinguished from said production pallet by being capable of recording data".

Piety et al., like Crews Jr., Krainski Jr. and Shelor, is not a "pallet" as a stand-in or "substitute for a production pallet" and thus is not relevant to show or suggest the limitations of claim 2 and its dependent claims 5 and 6.

Further as to claim 6, even if one skilled in the art recognized that downloaded data should be saved and evaluated, he/she would not know that such data should be collected by a "test pallet" in a machining station as a "substitute for a production pallet" and that the collected data then be used to monitor the machining of production parts as a preventative maintenance procedure before low or no clamp loads adversely impact part quality.

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CONCLUSION

This Amendment is believed to be fully responsive to the Office Action mailed 11/22/02. The allowance of claims 7-15 is appreciated. The amendments to the rejected claims 1-6 and the remarks in support of the rejected claims are believed to place this Application in condition for allowance.

Respectfully submitted

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Attachments (Version with Markings to Show Changes Made)

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Please amend claims 1, 2 and 3 as shown below:

1. A method for monitoring [measuring] clamping loads used to clamp clamp portions of a production part in position in a matching fixture, comprising the steps of:
substituting a test part for the production part wherein said test part includes at least one clamp portion [each] in the same location as a clamp portion on said production part and having a load cell installed thereto;

clamping said test part with a clamp at said clamp portion of said test part; and

collecting and recording data from said load cell.

2. A test pallet to substitute for a production pallet having a clamp portion located thereon in a [machining] station for machining comprising:

said test pallet configured [as] with a clamp portion like said production pallet but distinguished from said production pallet by being capable of recording data;

[at least one] said clamp portion on said test pallet being in the same location as the clamp portion on said production pallet;

a load cell installed at [each of] said clamp [portions] portion on said test pallet; and

an on-board data acquisition collector.

3. The test pallet, as defined in claim 2, further comprising a test code operable to communicate at said station not to proceed with [any] said machining [operations] there.

Attachment